



WILLIAM T FUJIOKA  
Chief Executive Officer

## County of Los Angeles CHIEF EXECUTIVE OFFICE

713 KENNETH HAHN HALL OF ADMINISTRATION  
LOS ANGELES, CALIFORNIA 90012  
(213) 974-1101  
<http://ceo.lacounty.gov>

May 20, 2008

The Honorable Board of Supervisors  
County of Los Angeles  
383 Kenneth Hahn Hall of Administration  
500 West Temple Street  
Los Angeles, CA 90012

Dear Supervisors:

**DEPARTMENT OF PUBLIC WORKS: REQUEST FOR APPROVAL  
TO PURCHASE A TRUCK WITH A JETTER/TV/FOAMER SYSTEM  
(ALL SUPERVISORIAL DISTRICTS)  
(3 VOTES)**

**SUBJECT**

This action is to approve the purchase of a replacement truck with a jetter/TV/foamer system, which is a budgeted Fiscal Year 2007-08 Fixed Asset.

**IT IS RECOMMENDED THAT YOUR BOARD:**

Approve the Department of Public Works to acquire a replacement maintenance equipment at an estimated cost of \$300,000 budgeted in the Fiscal Year 2007-08 Internal Service Fund Fixed Asset Equipment appropriation.

**PURPOSE/JUSTIFICATION OF RECOMMENDED ACTION**

The purpose of the recommended action is to comply with the County Equipment Policy (Policy) that your Board adopted on October 16, 2001. This Policy requires your Board's approval prior to County departments purchasing equipment with a unit cost of \$250,000 or greater. Attached is a copy of the combination truck specifications.

This purchase is a replacement for an existing truck, with a jetter/TV/foamer system (Vehicle No. 21-224) that is estimated to cost \$300,000. The replacement criterion for this equipment is 8 years or 6,000 hours of operation and this equipment is 8 years old with 7,485 hours. This equipment is used daily by the Department of Public Works' (Public Works) Sewer Maintenance Division to perform routine and preventative sewer

Board of Supervisors  
GLORIA MOLINA  
First District

YVONNE B. BURKE  
Second District

ZEV YAROSLAVSKY  
Third District

DON KNABE  
Fourth District

MICHAEL D. ANTONOVICH  
Fifth District

cleaning and to respond to emergencies such as sewer overflows in compliance with State Waste Discharge Requirements (WDR).

### **Implementation of Strategic Plan Goals**

The Countywide Strategic Plan directs that we provide Service Excellence (Goal 1), Organizational Effectiveness (Goal 3), Fiscal Responsibility (Goal 4), and Community Services (Goal 6). This action will enable Public Works to continue to provide County residents with enhanced, responsive, efficient, and cost-effective sewer maintenance.

### **FISCAL IMPACT/FINANCING**

There will be no impact to the County General Fund. The cost for this acquisition is estimated to be \$300,000 and is included in the Fiscal Year 2007-08 Internal Service Fund Fixed Asset Equipment appropriation.

### **FACTS AND PROVISIONS/LEGAL REQUIREMENTS**

On October 16, 2001, your Board adopted a Policy whereby departments will obtain Board approval to purchase equipment with a unit cost of \$250,000 or greater prior to submitting their requisitions to purchasing.

### **ENVIRONMENTAL DOCUMENTATION**

In accordance with Section 15378(b)(4) of the California Environmental Quality Act (CEQA) Guidelines, approval of the recommended action does not constitute a project and, hence, is not subject to the requirements of CEQA.

### **IMPACT ON CURRENT SERVICES (OR PROJECTS)**

The approval of this request will enable Public Works to continue to perform its routine sewer maintenance activities in a more efficient and cost-effective manner. Your Board's approval will allow Public Works to replace outdated maintenance equipment and continue to provide sewer maintenance services to County residents.

The Honorable Board of Supervisors  
May 20, 2008  
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**CONCLUSION**

Please return two adopted copies of this letter to the Department of Public Works, Fleet Management Group.

Respectfully submitted,

A handwritten signature in black ink, appearing to read 'WTF', followed by a stylized flourish.

WILLIAM T FUJIOKA  
Chief Executive Officer

WTF:DDE  
PM:jd

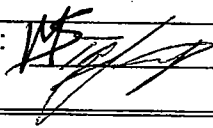
Attachment

c: County Counsel

LOS ANGELES COUNTY DEPARTMENT OF PUBLIC WORKS  
FLEET MANAGEMENT GROUP  
SPECIFICATIONS  
SECTION A



FOR: TRUCK, JETTER/TV/FOAMER, conforming to the following specifications.

DEPARTMENT REQ. NO: _____	SPECIFICATION NO: _____
QUOTATION NO: _____	BUDGET NO(S) 241R (1) 2007-2008 F.S. 021
MAKE: _____	MODEL: _____
VENDOR NAME: _____	BID PREPARED BY: _____
ADDRESS: _____	PHONE: _____
SPECIFICATION BY: FRANK V. SOLANO	APPROVED BY: 

**IMPORTANT NOTE:**

This specification MUST BE REVIEWED with your bid quotation. Failure to return a completed specification MAY VOID your bid.

The "BIDDER'S RESPONSE" page should be attached to the specification stating compliance with or proposed alternatives to specified details.

The page number, paragraph, and line should be referenced when deviating from the specification and must be included.

**Exception:**

**Vendors are required to complete the right-hand column of this specification. If taking no exceptions to the stated specifications, indicate so by writing "As Specified" for each specification. If taking exception to a specification, indicate by listing the exception information based on your product offering".**

Bidders should note that specific warranty requirements are included in this specification.

This specification, when completed by the successful bidder and accepted by the County, becomes a part of the contract between the bidder and the COUNTY of LOS ANGELES.

**LIQUIDATED DAMAGES:**

Liquidated Damages: It is mutually understood and agreed that Vendor's failure to deliver on time [the equipment] will result in damages being sustained by County. It is also understood and agreed that the nature and amount of the damages will be extremely difficult and impractical to fix; that the liquidated damages set forth herein are the nearest and most exact measure of damages for such delay that can be fixed at this time; and that the liquidated damages are not intended as a penalty or forfeiture for Vendor's breach. Therefore, in the event that [the equipment] is delivered late, it is agreed that County may, in its sole discretion, assess against Vendor liquidated damages in the amount of cost equal to the daily rental rate of the equipment specified [ ] per monitoring report for each day until County has been provided with [the required equipment]. The liquidated sums specified represent a fair approximation of the damages incurred by the County resulting from the Vendor's failure to meet the delivery date for which an amount of liquidated damages is specified. The County's right to liquidated damages shall be in addition to an, not instead of all other remedies available to County, contractually, in law or in equity.

Should the successful bidder be obstructed or delayed in the work required to be done hereunder by changes in the work or by any default, act, or omission of the County or inability to obtain materials, equipment, or labor due to Federal government restrictions arising out of the defense or war program, then the time of completion shall be extended for such period as may be agreed upon by the County and the successful bidder.

Shall there be insufficient time to grant such extensions prior to completion date of the contract, the County may, at the time of acceptance of work waive liquidated damages which may accrued for failure to complete on time, due to any of the above, after hearing evidence as to the reasons for such delay and making a finding as to the cause of same.

In the event that the successful bidder is on strike at the time of the award of the bid, the County reserves the option to accept the first acceptable bid from a manufacturer that is not on strike.

**COMPLIANCE WITH SPECIFICATIONS:**

Compliance with the requirements of these specifications shall be evidenced by the manufacturer's data sheets published prior to issuance of these specifications, a copy of which shall be included with and made a part of the bidder's quotation.

Any exception to these specifications shall be specifically noted in the "BIDDER'S RESPONSE" column, adjacent to the appropriate item.

A bidder furnishing the equipment described in these specifications shall furnish evidence of similar equipment which has been in successful operation for a period of not less than two years in the continental United States. The unit, as specified, shall be of current year manufacture and shall be the manufacturer's standard advertised production model built in accordance with the top standards of the industry.

Modifying the unit or accessories to meet these specifications shall be construed as not offering the manufacturer's standard production model.

Acceptance of this equipment by the Department shall not waive the responsibility of the vendor to provide a unit that is in compliance with the specifications as bid. No part or parts defective in construction or deficient in any of the requirements of these specifications will be considered as accepted in consequence of the failure of any employee of the Department to point out said defects prior to the acceptance of the equipment by the Department.

It is deemed the responsibility of the bidder, as an expert in his field, to evaluate these specifications and bid a unit that is fully compatible with current industry standards.

Any subcontractor or supplier of attachments to this unit MUST be listed on the bid adjacent to the appropriate section.

**REFERENCES:**

References are listed to indicate the specific type, quality, function and/or durability of the item or items required. Bidders may offer superior or an approved equal product or item. The County will make the final determination on comparability of items offered. If the item or items offered is not comparable, the bidder shall provide the item specified or an approved equal at no additional cost.

**AWARD CONSIDERATIONS:**

The right is reserved to purchase equipment that, in Department's opinion, represents the best overall value. Consideration will be given to price, performance, operation, and maintenance cost, history of user satisfaction, and safety of operation.

The County requires delivery of this (these) units as soon as possible, but no later than 180 days from award of this bid. Delivery time will be considered in the bid award. Please enter the number of calendar days needed for delivery of the complete order:

\_\_\_\_\_ days.

**EXCEPTIONS:**

Bidder may take exceptions to any part of this specification providing that a full and complete explanation of such exception is included in the bid.

**ALTERNATIVES:**

Bids on equivalent equipment will be considered provided that a full description and specification for the alternatives are submitted.

**COMPATIBILITY OF COMPONENTS:**

Bidder to guarantee that various component groups, including but not limited to, engine transmission and drive line-differential, to be compatible and allow the equipment/vehicle to perform in a safe and satisfactory manner.

**PARTS AND SERVICE:**

Due to emergency status of the Los Angeles County Department of Public Works, bidders to guarantee to maintain an adequate stock of spare parts.

If the bidder does not have spare parts available in the Los Angeles County area, it must be stated in the response column with estimated parts delivery time.

The bidder shall guarantee that parts prices will be as low as such parts are sold to any other user.

Vendor to guarantee that parts availability for this unit for a period of at least seven (7) years from date of manufacture.

**IF VENDOR DOES NOT HAVE SERVICE FACILITIES IN LOS ANGELES COUNTY,** approved major component service companies in the Los Angeles area, must be designated in the response column.

**PRE-DELIVERY INSPECTION REQUIREMENTS:**

The specified equipment/vehicle will not be accepted for delivery unless a pre-delivery inspection has been completed and approved by Public Works. To schedule a pre-delivery inspection appointment, contact (the Contract Manager) of Fleet Management Group at Los Angeles County Department of Public Works at (626) 458-7336 or (562) 869-9312 between the hours of 7:30 a.m. to 3:30 p.m. Monday through Friday. If the awarded vendor opts to request department representation that requires out of state travel, expenses other than meals and salary will be paid by the primary vendor. If out of state travel is requested, the awarded vendor must notify this office four (4) weeks in advance of the requested date. In addition to any other meetings, a final inspection will be conducted locally. At this meeting, Public Works division coordinator(s) will present a list of operators requiring training and the required criteria for user training will be established as well as a scheduled date for the training to be provided.

**TRAINING & MANUALS REQUIRED:**

- The awarded vendor will be required to provide up to eight (8) hours, as determined by Public Works, of training for the equipment. Training must be conducted by a qualified factory representative at a location that has been mutually agreed upon.
- The awarded vendor is responsible for providing Public Works a copy of the training materials in advance of the training session. Public Works will review the materials and provide the awarded vendor any required additions or changes to the material. The trainer shall send Public Works a completed sign in sheet for each training class that includes the printed names and signatures of all participants and trainees. These documents must be forwarded via certified mail to Fleet Management Group attn: Safety Coordinator, 900 S. Fremont Ave. , 7th floor, Alhambra, CA. 91802
- The awarded vendor shall provide a minimum of two (2) sets of operation AND three (3) sets of repair manuals, complete color coded wiring diagrams and complete hydraulic diagrams. These may be provided on Compact Discs that are suitable for use on Public Works' personal computers.



**INVOICES:**

Vendor shall furnish the Department no-charge invoice for all work performed under warranty.

Each invoice shall itemize parts used and show all labor charges.

Invoices to be provided to the Department within seven (7) days of completion of repairs.

All invoices and billing to be mailed to: Los Angeles County Department of Public Works Fiscal Division, P.O. Box 7508 Alhambra, CA 91802-7508.

**PAYMENT:**

Payment will be with-held until the equipment /vehicle has been inspected and all terms of the specification have been completed.

The discount clock does not commence until the equipment has been accepted at our facility.

The Department will notify the vendor if any discrepancies are discovered or when the equipment meets specification and is accepted when possible.

**DEPARTMENT'S LOCKOUT/BLOCKOUT STANDARDS:**

Capability for lockout must include an opening for a lock at the main disconnects switch and/or valves. The valves shall be lockable after being bled. If the equipment, as supplied by its original manufacturer, does not provided for this capability, it must be provided with the necessary hardware to meet these requirement without compromising any safety or operational features of the equipment or machinery. Additionally, any equipment or machinery offered shall include permanent labeling of all lockout points. Bidder shall describe, as part of the bid submittal, a functional lockout tagout standard operating procedure describing how equipment or machinery is to be locked out and where it can be tagged out. The lockout devices needed to adhere to the standard operating procedure must be provided with the equipment or machinery, and it should be included in the bid price. Vendor must comply with the above standards, otherwise perspective bidders will be disqualified from this solicitation.

**BIDDER MUST INITIAL AND DATE:** \_\_\_\_\_

**LICENSE PLATES:**

Vendor shall make all necessary applications and complete all transfer documents. The awarded vendor to procure the CALIFORNIA exempts license plates.

The registered owner shall be shown EXACTLY as out-lined below, on all documents where the registered owner is listed.

LA County Dept. Public Works  
900 S Fremont Ave  
Alhambra, CA 91802-1460

Vendor shall supply one (1) certified weight certificate for each unit delivered.

**PERFORMANCE TEST:**

A Performance test at the expense of the bidder may be required for the purpose of final evaluation after the bids are received, to determine that the operating requirements of the Department of Public Works are met.

The date, time, site, and conditions of such test shall be selected by the Los Angeles County Department of Public Works.

**REVISITS:**

VENDOR SHALL INCLUDE IN THE BID PRICE (if requested), the cost of a revisit to the equipment approximately thirty (30) days after it is placed in service. The revisit shall include the following:

Check all operating systems for proper operation and adjustment.

Check equipment visually for leaks and material defects.

Vendor shall notify the Department at least twenty-four (24) hours prior to the revisits.

SECTION A  
PAGE 8

**GENERAL:**

The equipment covered by these specifications shall be new and complete with all standard equipment and accessories. Any item or accessory not mentioned in this specification, but required for operation of the unit, must be itemized and included in the bid. Any component identified as standard equipment must be furnished at no additional cost.

The equipment shall conform in all respects to the Division of Industrial Safety Orders Cal/OSHA and California South Coast Air Quality Management District (SCAQMD). Plus any other pertinent regulations. **Bidder is required to furnish proof of certification/compliance at time of receipt of chassis or equipment to the outfitter or dealership. NO EXCEPTION.**

This equipment shall meet or exceed noise emission limits applicable to Federal and Cal / OSHA requirements for operators on (8) hours operation without hearing protection.

All separate units shall be installed and connected for operation.

Bidder shall furnish complete information on the equipment to be furnished. Information must include published literature indicating all standard and optional features.

Only new, current production models will be considered.

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**INTENT:**

To purchase a **TRUCK, HYDRO W/HYDRO JET CLEANER, CAMERA AND FOAMER**, conforming to the following features and specifications.

It is the intent of this specification to provide for the purchase of one (1) complete Multifunction Vehicle to include the following main components; a sewer cleaning Jetter to clean sewers and related underground infrastructure. Camera with software, video monitors and computer hardware (As specified). A foaming system shall be turnkey and complete for dispensing root foaming chemicals into the above referenced underground infrastructure.

**INTENT: (Cont.)**

In comparing proposals; the successful bidder will be one whose product is judged to best serve the interest of the County when safety, product, quality, service support and delivery are considered. Los Angeles County Department of Public Works reserves the right to reject any and all bids or any part thereof, and to waive any minor technicalities when reviewed by the specification writer. A contract will be awarded to the bidder submitting the lowest responsible bid meeting the requirements of this specification.

**BODY STYLE:**

The following are minimum required for adequate use.  
**All options are required, if vendor is unable to provide please note in Bidder's Response section.**

**CHASSIS MODEL:** 4300 SBA 4 X 2 (MA025)

Wheel Base: WB = 165" CA: 96" **(USEABLE)**; 97.9" (ACTUAL), AF = 55"

GWAR: Front: 12,000 lb, Rear: 21,000 lb, Total: 33,000 lbs.

Est. Weight: Front 6,726 lb, Rear 3,729 lb.

**ENGINE:**

In accordance with So. Coast AQMD's Rule 1191, the Engine shall be certified by the California Air Resources Board as being \_\_\_\_\_  
(<http://www.arb.ca.gov/msprog/ccbg/2007pc.htm>)

**Bidder shall fill in blank area indicating certified engine.**

**ENGINE:** (Cont.)

**VENDOR NOTE:**

**See option of for CNG Engine at end of specification, please bid as an option.**

International DT 466, 225hp, 560lb-ft Torque @ 1400 rpm, 2600 rpm governed speed. ACERT certified engine.

Air Cleaner Restriction Indicator- air cleaner mounted.

Fuel-Water Separator

Wet Type Cylinder Sleeves

Cruise Control – Electronic

Engine Shutdown

Engine Oil Drain Plug – Magnetic

Oil Filter – Spin on

Crankshaft Damper – Viscous

Fan

Air Cleaner: Single Stage

Alternator: 145 Amp Delco 22-SI

Batteries: (3) International, 1950 CCA Series 550

Compressor: Bendix 13.2 CFM Series 550

Exhaust: Single RH, Vertical Pipe, Frame Mounted with trap as required by AQMD. Bidder's response required.

Exhaust: 90 Degrees Elbow – Tail Pipe

Fan Drive: Borg Warner SA85 – Viscous

Radiator: Aluminum 2 – Row w/ Charge Air Cooler

**ENGINE: (Cont.)**

Starter: Delco 12V, MT- 41 Type 450

Fan Drive Special Effects: Cooling Ring w/ Fan Shroud

Hand Throttle: Electronic Speed Control

Engine Control: Remote Wiring for PTO Controls

Expanded Engine Effects: High Temperature Operating Range

**TRANSMISSION:**

Allison 3000\_RDS\_P; 5 Speed

5 Speed Airport Refueler /Sewer Evacuator Transmission Programming

Shift Lever: Electronic, Push Button, Dash Mounted

**STEERING:**

Steering Gear: TRW TAS-65 Power

**FRONT AXLE AND SUSPENSION:**

International I-120SG@12,000 lb

Taper Leaf – 12,000lb capacity w/ shock absorbers

Front Brakes: Cam Type - 15.0" x 4.0"

**REAR AXLE AND SUSPENSION:**

DANA SPICER 21060S Single Reduction, 21,000lb Capacity, w/5.29 Ratio

REAR: Vari-Rate, 23,000lb Capacity w/ 4,500lb

**REAR AXLE AND SUSPENSION: (Cont.)**

Auxiliary Rubber Spring

Rear Brakes: Cam Type - 16.5" X 7.0"

**BRAKE SYSTEM:**

Brake System: Air

Air Compressor Air Supply Line

Spring Brake Chambers

Automatic Slack Adjusters - front and rear

Parking Brake

Drain Valve

Spring Brake Modulator Valve

Air Pressure Gage

Anti-Lock Braking System: Bendix Full Vehicle  
Wheel Control 4-Channel

**FRAMES & WHEELS:**

Wheelbase: Range of 134" - 197"

Frame: Heat Treated Alloy (120,000 psi Yield),  
10.125" x 3.580" x 0.312"

**CHASSIS EQUIPMENT:**

Bumper: Front Full Width – Aerodynamic

**FUEL TANKS & EQUIPMENT:**

Fuel Tank: 70 gallon, Left Side Mounted Under Cab,  
Top Draw

Fuel T

**FRONT TIRES, HUBS & WHEELS:**

Tires: (2) 11R22.5 G149 RSA Goodyear

Tires:

Front Wheels: 22.5" x 8.25" Painted Steel, 10-Stud

Front W

**REAR DRIVE TIRES, HUBS & WHEELS:**

Tires: (4) 11R22.5 Unisteel G1676A Goodyear

Tires:

Rear Wheels: 22.5"x8.25" Painted Steel, 10-Stud,  
Dual Disk

Rear W

**CAB EXTERIOR:**

Cab: Conventional Steel

Lights shall be combination strobe controlled by a  
separate switch and linked to rear amber strobes on rear  
face of cargo body. The number of required lights as  
well as make and model will be determined at time of  
pre-build meeting.

Arm Rest

Floor Covering

Coat Hook

Grab Handle

Steps



**CAB EXTERIOR: (Cont.)**

Tinted Glass

Grille: Chrome

Hood: Tilting, Fiberglass

Headlights: Halogen w/ Daytime Running Lights

Primary Mirrors: Rectangular 7.44" x 14.84" w/  
Break-A-Way Feature

**CAB INTERIOR:**

Interior: Deluxe

Overhead Console

"A" Pillar Cover

Headliner

Instrument Panel Trim

Dome Light

Sun Visor

Door Storage Pocket

Cab Interior Trim Panels

Door Trim Panels

Air Conditioner: International w/ Integral Heat and  
Defrost

Passenger Seat: Gra-Mag Non-Suspension

Driver Seat: National 2000 Air Suspension

**CAB INTERIOR: (Cont.)**

Steering Column: Fixed

Steering Wheel: 18" Two-Spoke, Black

FM-AM CD Radio with required speakers.

**INSTRUMENT PANELS & CONTROLS:**

Gauge Package: Standard

Odometer

Warning System

Gauge Cluster

Instrument Panel Trim

Radio: Sterling AM/FM CD Stereo or Equal

Electrical System:

Fuses

Turn Signal Switch

Horn

Parking Light

Stop/Tail Turn Lights

Starter Switch

Turn Signals

Data Link

Windshield Wipers

**PAINT:**

One Solid Color Design – White

Paint Type: Base Coat/Clear Coat

**WATER TANK:**

Tank capacity shall be 1500 gallons of water.

Tank shall be welded/repairable construction of .500", U.V. stabilized Duraprolene.

The baffles in the tank will be constructed of .375" Duraprolene. These baffles will reduce sloshing and distortion and will form no less than sixteen interconnected compartments.

Tank bottom will be flat bottom type; pump intake will be located to allow sediment to settle at tank bottom rather than entering and damaging pump.

Tank will be equipped with a strainer at tank top for elimination of foreign objects into tank.

Entire tank top shall be completely removable for safe access of personnel entry during maintenance.

Duraprolene to be ultraviolet stabilized to prevent material breakdown.

Tanks constructed of steel will not be acceptable due to the potential of water pump damage by rust and corrosion particles.

Tanks constructed of polypropylene will not be acceptable due to inadequate UV protection and lack of reparability.

**FILL SYSTEM:**

Tank filling shall be possible from both curbside and street side.

Tank filling system and fill hose will be located between the cab and water tank of the unit with a fill point on both sides of the truck.

Tank fill system shall utilize a quick disconnect cam lock fitting for 2-1/2" fill hose.

A water level indicator will be located at operator's station.

A water level sight gauge will be located on street side and on curbside.

A four-inch air gap will be utilized between fill pipe and tank fill opening to eliminate siphoning potential.

There will be a shut-off valve between tank and 20-mesh "Y" strainer.

2" drain valves will be located at both curbside and street side.

Air gap shall have an integral float valve assembly to eliminate water discharge due to movement of the vehicle.

**CAMERA CONTROL SYSTEM:**

The camera monitor shall be a 7" minimum LED screen mounted on the left side of the hose reel assembly.

The camera monitor shall be enclosed in a lockable sealed enclosure that allows for optimum security.

Said enclosure shall be of aluminum construction with a removable front panel.

**CAMERA CONTROL SYSTEM: (Cont.)**

The above camera monitor enclosure shall also include the necessary controls for operating the camera functions. These controls shall be mounted in a NEMA 4 enclosure.

The camera controls shall be located in a weather tight enclosure, shock mounted for optimum durability. Said enclosure shall be of aluminum construction.

Camera controls shall consist of a Computer System, Monitor and CAMERA CONTROL CENTER with storage tray. These controls shall be of a slide in rack mount design for ease of maintenance and durability.

The camera control shall operate off 12 VDC power and rated for mobile operation.

This control center shall incorporate all camera controls. Said controls shall consist of camera head light intensity, camera power control, microphone jack, footage counter display reset and individual circuit breakers for various accessories. In addition, this control center shall have the ability to change control locations from the control center to the remote controller at the hose reel.

**Vendor shall submit type of software to be utilized in bidder's response section.**

**SOFTWARE, VIDEO MONITORS AND COMPUTER HARDWARE:**

Unit must include a data collection software system and DVD burner, USB ports two (2) minimum. Computer hardware shall be fully compatible with the monitor and camera, and meet or exceed the minimum requirements of WinCan System. WinCan Inspection Software, with the PACP Module, version 7.4 or latest version available at time of execution of the purchase order.

**SOFTWARE, VIDEO MONITORS AND COMPUTER  
HARDWARE: (Cont.)**

~~Printer, HP 900 series or equal, color inkjet printer with  
direct CD/DVD cover print facility.~~

Removable storage, Buslink USB 2.0 hot swappable  
hard drive 200GB 7200 rpm, or equal.

**CAMERA:**

The camera shall be self righting/self leveling and of a  
high resolution (400 lines minimum) color camera.

The camera shall also have high sensitivity, 0.2-LUX  
minimum.

The camera shall have an Electronic Iris to compensate  
for light intensity.

The camera shall have a Shatterproof Sapphire Window,  
Stainless Steel Housing and be Internally Potted for  
Shock Protection and Water Resistance.

The camera shall have an LED Light head consisting of  
48 Low Power, Long Life LEDs. The LED light head shall  
be designed for illumination for up to 24" diameter pipes.

Camera skid shall be propelled through the sewer via a  
water jet skid complete with replaceable inserts; inserts  
shall be available in hardened steel or ceramic materials  
of construction.

**360° ROTATING CAMERA:**

The camera system shall include an additional rotating  
head camera assembly. Said assembly shall have the  
ability to rotate through a 360-degree arc allowing the  
operator to inspect lateral pipe connections and  
the like.

**360° ROTATING CAMERA: (Cont.)**

The camera shall be of a high-resolution (400 lines minimum) color camera. The camera shall also have high sensitivity, 0.2-LUX minimum.

The camera shall have an Electronic Iris to compensate for light intensity.

The camera shall have a shatterproof Sapphire Window, Stainless Steel Housing, and be Internally Potted for Shock Protection and Water Resistance.

The camera shall have an LED Light head consisting of 48 Low Power, Long Life LEDs. The LED light head shall be designed for illumination for up to 24" diameter pipes.

The camera control center shall control the transfer of control between cameras as well as the rotating camera lens location.

**ROTATING SAFETY DUAL REELS:**

Unit shall be equipped with two (2) hose reels. The hose reels shall be constructed of 1/4" steel, designed to withstand maximum working pressure without distortion.

The narrow designed reels shall be self-leveling type for operator safety.

The left side reel of the unit has a minimum capacity of 500' of Umbilical Hose/Cable to propel the high definition camera through the sewer line.

The right side jetting hose reel shall have a capacity of 800' of 1" sewer hose. The hose shall be rated at 2,500 psi with male and female connectors

Reel flanges shall be a minimum of 1-1/2" wide and designed to prevent hose damage.

The hose reel sides will be reinforced with heavy-duty side supports to eliminate damage.

**ROTATING SAFETY DUAL REELS: (Cont.)**

The sewer hose will be attached to the reel on the inside to facilitate replacement of hose.

The dual hose reel assembly shall be mounted in the rear/center of the rear compartment.

The hose reels shall have the ability to extend out from the rear compartment via a hydraulically powered cylinder.

The cylinder shall extend the hose reels 48" from the fully retracted position in the heated rear compartment after the rear roll-up door has been completely opened.

To provide direct alignment to manholes, the hose reel shall rotate 190-degrees when fully extended in the operating position. Direct alignment minimizes hose wear and damage.

The hose reel mount assembly shall be supported by ball bearings allowing for smooth trouble free operation.

Said assembly shall be capable of being extended or retracted by hand in the event of the loss of hydraulic power.

Mount assemblies utilizing sliding contacts shall not be acceptable.

The hose reels shall rotate on a heavy-duty vertical thrust bearing. Hose reels relying on sliding contact or other wear surfaces are not acceptable.

The hose reels will lock into position using a spring-loaded safety pin at 2" intervals.

The Sewer Hose reel (right reel only) shall be equipped with an automatic level wind, which allows for "hands-free" winding of sewer hose onto the hose reel without operator touching sewer hose.



**ROTATING SAFETY DUAL REELS: (Cont.)**

The automatic level wind system (sewer hose reel/right reel only) will incorporate a drive system, which scrolls a pivoting "V" roller head back and forth across hose reel for proper winding of sewer hose onto reel.

The automatic level wind system is equipped with a hydraulic controlled elevation system, which incorporates dual cylinders and pivot arms to raise and lower the level wind guide depending on location of manhole. Level wind raises/lowers minimum 45 degrees.

The "V" roller head will open to allow use of hose guide, fin extension, and nozzle without need to thread hose into guide.

A pendant control with 25' cord will be supplied for ease of operator use with the automatic level wind.

The pendant control will include controls for hose reel "Forward/Neutral/Reverse", engine throttle "up/down" and a kill switch.

The reel design shall be such that either a rotating or fixed position reel will be interchangeable with regards to the method of attaching to the truck.

Digital Footage Counter to be included with the capability of footage accuracy of plus or minus one percent that is displayed on a digital screen with 2" red LED number display.

The Digital Footage Counter measures the rotation of the hose reel and takes into account the diameter of the hose, the length of the hose, and the diameter of the hose reel drum.

Based on that information the Digital Footage Counter delivers footage accuracy of plus or minus one percent.

The Digital Footage Counter to be run off 12 volts. The digital footage counter shall be displayed on the sewer camera monitor.

**ROTATING SAFETY DUAL REELS: (Cont.)**

User can store up to 10 distance counts for review at later time. The Digital Footage counter includes an A/B switch so user can view footage of either hose reels on unit from the single display. Footage of the B reel can also be viewed on the monitor of the TV system. This footage can be recorded through the VCR in the TV system.

**HOSE REEL DRIVE SYSTEM:**

The hose reels shall be chain driven by hydraulic power in both directions, either with or without the water pump in operation.

The hydraulic drive shall have sufficient power to retract the hose and umbilical cable when fully extended into the sewer with the cleaning nozzles in operation.

A hydraulic pump rated at 0-8 GPM at 2,000 PSI will power the hose reel drive.

A hydraulic motor with chain drive and sprocket capable of operating in both directions will be furnished. The hydraulic motor and chain must be adjustable.

The hydraulic drive for the reels will be furnished with an overload relief valve.

The hydraulic drive for the reels shall select left or right reel control through use of a single diverter valve mounted on the hose reel assembly.

**UMBILICAL HOSE/CABLE:**

The camera propulsion left side mounted reel on this unit shall be equipped with an Umbilical Hose/Cable which encases 500' of 5/8" high-pressure polyurethane sewer hose of specially formulated thermoplastic construction expressly designed for sewer cleaning and an 11-conductor .410" diameter video cable.

**UMBILICAL HOSE/CABLE: (Cont.)**

The Umbilical Hose/Cable shall have an abrasion, and scuff resistant cover.

The Umbilical Hose/Cable that encases 500' of sewer jet hose and 500' of video cable is of single flat profile cord.

The Umbilical Hose/Cable is of "single construction". Two (2) piece systems that call for difficult "synchronization" of hose and cable during use are not acceptable.

**WATER SYSTEM PIPING:**

All piping systems subjected to high pressure shall use zinc chromate plated steel fittings with minimum burst pressure of 4 times the system pressure.

Hoses working pressure ratings shall exceed the maximum system pressure.

A strainer with a minimum of 40-mesh screen shall be installed in the suction line at a location accessible for cleaning.

All piping shall be installed to drain by gravity through suitable openings equipped with plugs, drain cocks, or ball valves.

Pressure to the cleaning nozzle, shall be regulated by an overload relief valve.

To control water flow from water pump, a single lever control shall regulate direction of water either to hose reel or back to tank utilizing a high-pressure valve assembly. This single lever control shall control a 3-way valve.

The recirculation ability of this system allows for use of unit in sub-freezing temperatures.

**WATER SYSTEM PIPING: (Cont.)**

Water delivery to hose reel shall pass through a single 90-degree swivel rotary coupling.

**WATER PUMP:**

Triplex positive displacement pump rated at and powered to produce 75 GPM at 2,500 PSI.

Water pump will be located in the rear compartment, which is shrouded and heated to protect the pump from the dangers of any damage caused by freezing.

Pump to be fitted with drain cocks for complete draining of pump.

Pump shall be fitted with a factory set overload relief valve.

The water pump shall be direct coupled to a hydraulic motor. Drive systems incorporating any type of flexible coupling or belt drive system are not deemed acceptable due to maintenance related issues.

**HYDROSTATIC DRIVE SYSTEM:**

The water pump will be driven by a hydrostatic system, which is powered by the truck engine via a PTO mounted to the transmission.

The PTO drives a shaft, which powers a hydrostatic transmission pump.

This hydrostatic transmission pump is responsible for driving a rear mounted hydraulic motor, which drives the water pump.

Also, mounted to the hydrostatic pump is a hydraulic pump, which is responsible for relaying power to a rear mounted hydraulic motor that drives the hose reel.

**HYDROSTATIC DRIVE SYSTEM: (Cont.)**

The hydraulic oil reserve capacity will be at least 24 US gallons with oil temperature indicator. This unit will also be equipped with low hydraulic oil indicator lights located in cab as well as at operator's station to signal loss of hydraulic oil. A hydraulic oil cooler will be provided with hydraulic oil filter. Hydraulic filter shall be cartridge style and integral to the reservoir.

The hydraulic oil reservoir, water pump, and rear hydraulic motor are to be mounted above the chassis frame rails in the enclosed, heated pump compartment located at the rear of the water tank.

**REAR BODY, TOOLBOXES, AND SKIRTING:**

Rear body will be constructed of aluminum for corrosion resistance and to protect all components located at the rear of the tank.

Rear body shall be designed for total enclosure of major components including the water pump, hydrostatic motor, hose reel and associated plumbing and sewer hose.

Rear housing must be of a one-piece construction including sides and top to allow for easy removal and eliminate any corrosion as the result of bolt together joints and seams.

Floor decking of rear body will be constructed of 11-gauge steel. Said flooring shall also be treated with a non-skid coating for maximum protection from slipping.

Rear compartment shall utilize three (3) "upward acting" compartment doors which incorporate a header/counter balance design. Made of anodized aluminum panels, which maximize maneuverability, minimize vehicle width and eliminate the safety hazard of open-hinged doors.

Panels will have no rollers or cables, will resist rust and will be virtually maintenance free.

**REAR BODY, TOOLBOXES, AND SKIRTING: (Cont.)**

Doors will include stainless steel, lockable and keyed alike heavy duty handles. Top and side seals will prevent dust, dirt and moisture from entry compartment.

Hinged doors that protrude into work area, invite accident or personal injury, and could result in severe structural damage if vehicle is moved with hinged doors open, cannot be accepted.

The rear compartment will utilize two deluxe roll-up doors on either side.

These doors will measure 48" wide x 52" high. These doors allow for complete access to rear compartment.

The rear compartment will utilize a deluxe roll-up door on the rear of unit that will measure 91" wide x 70" high. This door will protect components when closed and allow telescoping extension of hose reel when open.

The rear roll-up door will be equipped with an automatic safety switch, which will not allow hydraulic extension of hose reel unless roll-up door is opened completely.

Unit will include 5 aluminum underbody toolboxes; 2 toolboxes 18" x 18" x 30", 2 toolboxes 18" x 18" x 36", and 1 toolbox 10" x 19" x 54".

Toolbox will be protected from the effects of water and road dust by a thick, automotive "bulb type" neoprene door seal.

A heavy-duty handle (locking style) will be provided on toolboxes.

~~Located in an underbody toolbox is an open hydro-root cutter oil storage reservoir mounted in a rollout assembly. The tank will be equipped with a hydraulic hand pump, which will be utilized to service hydraulic root cutter. The tank will include a hinged lid which when closed will provide an airtight closure of the compartment.~~

**REAR BODY, TOOLBOXES, AND SKIRTING: (Cont.)**

The tank will include a drain for draining of water and changing of hydraulic oil. An expanded metal basket will be included inside tank.

Skirting will be made of 11-gauge steel extending full height of toolboxes with cutouts for rear wheels.

Stop, running, and directional lights will comply with ICC regulations.

Two (2) 4" PVC storage tubes for long handled tool storage shall be provided.

The rear compartment shall utilize three (3) deluxe roll-up doors which, when closed, completely enclose and protect the rear compartment.

When not in the extended position, the hose reels shall be housed within the heated rear compartment.

A recirculation fitting will be installed to allow for recirculation of water.

Recirculation will be possible at all times, including instances when truck is in motion.

An air purge system will be installed which allows high-pressure air to force water from system.

**HIGH PRESSURE HAND GUN SYSTEM:**

The high-pressure handgun piping shall be provided as standard with quick-disconnect fitting located at the control panel and 25' of 1/2" with high pressure hose fittings.

High-pressure handgun circuit shall utilize an adjustable relief valve capable of 500-PSI capacity.

The high-pressure handgun will be adjustable and repairable.

**CONTROL PANEL:**

The jetter control panel will be located at rear of truck on the curbside of the hose reel. All controls shall be mounted in a weather tight NEMA 4 control panel.

Control panel shall include:

Throttle

Low oil warning light (in cab as well)

Variable reel speed control

Forward/reverse hose reel control

Control panel light

Water level indicator (4 light)

Tachometer

Hour meter

Other controls contained in the rear compartment of the unit Water pressure gauge (glycerin filled)

Pump power control Quick disconnect fitting for wash down gun

**FOAMING SYSTEM:**

This system shall be used to generate foam from a solution of herbicide and foaming agents. The foam shall be used to fill sewer pipes to help eliminate roots in sewer systems. Foam produced must consist of small bubbles that can carry a sufficient quantity of herbicide to tree roots, and shall expand one (1) gallon of solution (herbicide and foaming agent) to twenty (20) gallons of foam. The system shall pump foam to a hydro-jetter via a crossover connection where it is applied in sewer pipes through a one (1) inch sewer cleaning hose.



**AIR COMPRESSOR:**

Air compressor used to aerate the herbicide foam solution must have four (4) cylinders, splash lubricated and rated at three (3) to five (5) horse power. The air compressor shall be designed to dissipate heat without the aid of fans or flywheel fans.

The compressor will be driven by a hydraulic motor powered by a gear driven hydraulic pump connected to the PTO port

The hydraulic motor shall have individual speed controls to calibrate air production.

**SOLUTION PUMP:**

The solution pump shall be a diaphragm designed type pump for agricultural spray applications. Diaphragms installed must be chemical resistant for use with herbicides. The pump shall deliver a sufficient volume of solution for generating desired foam quality.

The solution pump will be driven by a hydraulic motor powered by a gear driven hydraulic pump connected to the PTO port.

The hydraulic motor shall have individual speed controls to calibrate liquid volume for foam production.

**FOAMER:**

A three hundred gallon tank, with all necessary plumbing, valves, pump, and required attachments must be furnished. **It is the Bidder's responsibility to indicate make and model of foaming equipment to be utilized. Information shall be identified in bid response column.** The exact mounting location shall be determined at time of pre-build meeting.

**CONTROL PANEL:**

The control panel shall be non-solenoid manually operated switches. The control panel must contain the following components for foaming.

- 1.) On-Off toggle switch for hydraulic system PTO.
- 2.) Solution flow meter, 3-5 GPM.
- 3.) Glycerin filled air and liquid pressure gauges (0-200 PSI).
- 4.) Glycerin filled hydraulic oil pressure gauge (0-3000 PSI).
- 5.) Chemical loading and rinsing system.

System shall have all operation settings properly labeled and color-coded. Hydraulic controls shall be electronic and pre-set from factory to operate hydraulic motors at correct speed for driving the air compressor and solution pump. **Non-solenoid manually operated switches will be accepted. A solenoid-operated system will not be acceptable.**

The recessed control panel must contain the following components for jetting.

- 1.) Low water warning light.
- 2.) Tachometer.
- 3.) Hydraulic Pressure.
- 4.) Water Pressure.
- 5.) Hour Meter (Hobbs).
- 6.) Hose Reel Direction and Control Valve.
- 7.) Hose Reel Speed Control Valve.
- 8.) Throttle Cable.

**MOUNTING:**

Unit will be mounted on a base frame consisting of 2"x6" tubing.

Deck assembly will be bolted solid at rear and spring mounted under the tank to allow the jetter deck to fully support the tanks while allowing the truck chassis rails to flex.

**ACCESSORIES:**

Skid mounted 512 Hz Sonde transmitter capable of detection to 40 feet in depth, including compatible Sonde receiver.

25' fill hose

Nozzle extension

Tri-Point (chisel) Nozzle with replaceable inserts

HW-70 (high-flow) Nozzle with replaceable inserts

Hose guide with rope

Upstream pulley guide

**Lumberjack Cutter LJ200 with 6", 8", and 10" sleds**

Smart Cutter root cutter kit with roller skids for 8" to 18" pipe

8", 10", 12", 15", and 18" blades included with Smart Cutter Kit

Wash down gun with 25' x 1/2" hose with quick disconnect

Heavy-duty rear bumper with hitch

Floodlight at operator's station

Spotlight with 25' cord

Strobe beacon mounted on top of rear compartment

Mud flaps

Amber Strobes (4) rear mounted.

LED Arrow Board; rear mounted, exact location will be determined at time of pre-build meeting.

Rear pump compartment light

Operator's and parts manuals and touch up paint  
**SOFTWARE, VIDEO MONITORS AND COMPUTER  
HARDWARE:**

~~Wincan Inspection Software, with the PACP Module,  
version 7.4 (or latest version available at time of  
execution of the purchase order). Vendor shall provide  
the necessary Laptop computer with the appropriate  
docking station and hardware to record in real time digital  
video in MPEG 1 and MPEG 4 standard.~~

**OPTIONAL ENGINE ADDITION:**

**VENDOR SHALL SUBMIT BIDS FOR BOTH DIESEL  
AND CNG FUELED ENGINES. VENDOR MUST TAKE  
INTO CONSIDERATION REQUIRED ADDITIONAL  
EQUIPMENT FOR APPLICATIONS OF CNG ENGINE.**

**ENGINE:**

**A minimum of an 8.1 liter dedicated CNG engine.  
Please submit engine requirements as compared to  
diesel.**

**CNG FUEL TANKS:**

**A minimum of 50 gallon diesel equivalent. Tanks  
shall be mounted between the cab and body; tanks  
shall be in a protected enclosure with easy access.**

**Tanks must be rated at 3,600 psi.**

**CNG FUELING PORTS:**

**Shall allow for fast and slow fill fueling. Two (2)  
fueling ports with ignition interrupt dust covers. One  
fill port shall be mounted on left front bumper and  
one adjacent to the CNG tanks.**

**TRANSMISSION:**

**Allison MD3060**

**PAINT:**

Before painting, all metal shall be cleaned and etched with a phosphoric material to insure permanent bond of primer and paint. The entire unit shall be painted per customer specification.

All components of the unit whether purchased or manufactured shall be BOTH primed and painted prior to assembly in order to assure maximum resistance to corrosion. Painting after the assembly process is NOT acceptable.

The unit shall have the frame painted black and the hose reel and shroud assemblies to be painted per the customers color specification and shall be specified at the pre-build meeting.

**WARRANTY:**

The warranty period, terms and conditions, for this unit, and all provided accessories and attachments, shall be equal to the manufacturers standard warranty, or one (1) full year from the date the unit enters service with the County of Los Angeles. (Whichever is longer)?

Coverage shall include warranty against defects in materials or workmanship including all necessary parts, labor and transportation during the term of the warranty.

This shall include vendor's travel time to, and from, the site of warranty work, shipping and transportation of all parts and labor required to honor the warranty.

**WARRANTY: (Cont.)**

The unit(s) described in these specifications may be used by the Department in all weather conditions under possible 24- hour a day operation. This service is acknowledged to be severe and to impose extreme demands upon this unit and its components.

The supplier of any equipment pursuant to these specifications shall therefore be advised of the possibility of severe work conditions in this service.

Warranties may exclude failure caused by physical abuse, or lack of proper maintenance and physical damage from external sources.

The unit is to be delivered with warranty documentation for the complete unit including all components installed.

The County of Los Angeles will operate and maintain said equipment in accordance with the manufacturer's standard service manual, provided with the unit at time of delivery.

Service directives and updates to the contents of the manuals must be provided at no cost during the warranty period.

**MANUFACTURER'S WARRANTY:**

The truck's warranty shall be unconditional three (3) years 36,000 miles parts and labor from the date the vehicle is placed in service. All other components shall be unconditional one (1) year, unlimited miles or manufacturers standard warranty (whichever is longer) from the date the equipment is placed in service.

Warranty may exclude filters, normal replacement items, and physical damage from external sources.

**ENGINE EMISSION WARRANTY:**

The engine and its emission controls, shall meet all California requirements for five (5) years or 100,000 miles from the date the vehicle is placed in service. This shall include all parts and labor.

**FRONT AXLE, TRANSMISSION, DRIVE LINES AND REAR AXLES, WARRANTY:**

Shall be warranted for three (3) years or 36,000 miles of operation for defects due to defective workmanship or materials. This warranty shall include all parts and labor needed to repair any component listed in the warranty.

**EXTENDED WARRANTY QUOTE:**

If extended warranties are available from the vehicle's **MANUFACTURER**, please quote available extended warranty options here: Any additional cost for an extended warranty will NOT be considered in determining the lowest responsible bid.

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**DELIVERY:**

Deliver the vehicle to:  
Andy Navarro  
Los Angeles County Department of Public Works  
Equipment inspection office  
11282 Garfield Avenue  
Downey, Ca 91782

Telephone: (626) 869-9312

**SPECIFICATIONS PREPARED BY:**

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**NOTES:**



